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## Are We - "Food Rich" But "Nutrition Poor"?

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Nutrition shouldn't be left to guesswork or chance. Science has shown the nutrients we need as well as the foods that contain them. Still we tend to eat happily, but not wisely, when we could be eating happily and wisely.

by Ercel S. Eppright

**W**E HAVE PLENTY of food in the United States today. Most of us have enough money to buy food, and most of us can get it with little or no effort. A tasty meal can be assembled in a matter of minutes. And, if we can't go home for meals, we can find many restaurants to serve us.

There's plenty of opportunity to learn the facts about food and nutrition. Our knowledge of nutrition continues to increase with research, but we already know a lot about the composition of foods, our nutrient needs in health and disease and how to meet these needs.

Yet *our state of health and fitness as a nation is not as high as it might be*. This is true despite the many steps we've taken to reduce risks to health — for example, controlling communicable diseases, improving sanitation and hygiene, preventing misuse of child labor.

We've done little to prevent the assault on our health that occurs three to five times a day around our own dining tables. We tend to eat happily — but not wisely. We fail to

appreciate that the two can go together.

### Many Clues . . .

About 15,000 persons have participated in our nutrition studies within the last 10 years — enough people to make up a small-sized city. They are the people who have been weighed, measured and checked as regards their diets, food habits, body measurements, blood constituents, bone structure and physical fitness. They live throughout the United States. Of these people, 3,500 were 13 to 20 years of age — an age when food habits are being set and when patterns of eating become established. A fair number of these young people lived in Iowa.

When all the facts and measurements were in, the evidence of good or poor nutrition was there for us to see. Here are the danger signals that become apparent.

### Danger Signals . . .

**Danger Signal 1:** *Failure to regulate intake of food energy to meet body needs.* Keeping calories (food energy) in line with body needs is not a simple job. But it's highly important. This is an especially hard problem for women and girls. But

the danger signal also applies to men and boys.

For some, the error is on the side of too little food to meet energy needs. This is dangerous. Underweight in young people is a health hazard.

For others, and this includes many teenage girls, it's a question of too much food — more food energy than is needed. Many of the important changes in life occur in youth. These are very personal. Learning to meet them in a positive way is a valuable lesson that can continue throughout life.

An adjustment or balance between energy intake and output is important to health, appearance and, for some people, success. For many, weight control demands adjustments to changed conditions of living — conditions such as more money to buy food (especially rich food), more leisure, more conveniences. This isn't a problem to be taken lightly or ignored. It isn't one to be treated with fad diets.

**Danger Signal 2:** *Low blood concentrations of certain substances.* Concentration of hemoglobin (found in the red blood cells) also reflects the state of general nutrition. The formation of hemoglobin and the red blood cells depends on the supply of a number of materials plus a healthy functioning of certain body organs.

We haven't found a prevalence of alarmingly low concentrations of hemoglobin and red blood cells among Iowa adults and children. But we have found a fair proportion of children and women with low amounts of vitamin C and of carotenoids (yellow pigments that the body uses to make vitamin A) in the blood. This means that diets are low in vitamin C-rich fruits and vegetables and in the green, leafy and yellow vegetables.

**Danger Signal 3:** *Tooth decay.* Nearly all of us have one or more teeth that have failed to give lifetime service. Probably 98 percent of adults have so-called permanent teeth that have been mended or even removed.

There are many reasons for tooth deterioration, but dental decay indicates that all is not well in the formation or maintenance of our teeth. Teeth, like all other tissues in the

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## HOW DO WE KNOW?

**H**OW DO WE KNOW about our general nutrition-al status? It isn't just guesswork or idle opinion. Science is at work in the field of nutrition just as it is in other aspects of life. There are many ways in which we can assess health and fitness and, to some extent, tell how these are being affected by what people eat.

*We weigh and measure.* Body size and other body measurements are important indicators of people's diet and health. So are ups and downs in weight. Measuring that "spare tire" tells much about a person's nutrition. These measurements, plus records kept over a period of years, provide meaningful clues. They tell, for example, whether the body weight is due to a lot of excess fat or to muscle and bone. These measurements indicate whether we've geared our eating to our body needs.

And as we study the weights and measurements of many people over time, we see the trends for our population. This, too, tells us something about the over-all effects of our food habits. If the average weights of a group of people are moving up or down, we need to take a sharp look at their nutritional and energy needs.

*We take x-ray pictures of bones.* This tells us about certain aspects of growth — and particularly about the development of the bones. We now have ways to find out whether a person has bones and body of the same or different ages. Some children mature much earlier

than others. This rate of maturing has an important influence on nutrition.

*The doctors take a look.* Physicians look at such points as our eyes to see if they're clear or "inflamed," our tongues to note the color or the smoothness, our skin to see if it's dry or harsh or has resilience and "bloom." They look at our hair, posture and general appearance. Taken alone, these items may be signs of bad habits, exposure to weather, etc. Considered together with food habits, they help to indicate our state of nutrition.

*Dentists examine teeth.* We don't know how much each nutrient affects the soundness of teeth. But we do know that good nutrition is important in preventing and inhibiting tooth decay for most people.

*We analyze blood samples.* "Blood will tell," and it does tell us much about what we've eaten recently, about the body stores of the substances that make up the body, and whether the body is making good use of its building stones of chemical substances.

*We study diets and food habits.* The first step toward poor nutrition is a poor diet. The body is like a house. It may not look much like the materials that go into it, but it can be no better than the materials that are put into it. Poor food habits invariably lead to a faulty structure.

The *amounts* of building materials we need differ according to the type of structure that we have. But the *kind and quality* of the building materials themselves do not differ much.

body, depend on the nutrients with which the body is provided. If the necessary materials aren't present in the body, teeth may deteriorate. Some people may be resistant to dental decay for reasons not understood, but a good diet is one safeguard to teeth that people can provide.

**Danger Signal 4:** *Lack of over-all physical fitness.* We hear and read about the need for improved physical fitness, more exercise and well-directed recreation. The first step is to lay a firm foundation with a sound body. Drive is important, but unless we have good bodies and alert minds, we'll find it hard to win the race. Good nutrition isn't all of physical fitness, but it is one of the starting points or foundations.

**Danger Signal 5:** *Many youth aren't A-plus in health ratings.* Few children in any schoolroom stand out on all counts of good health. Even fewer stand out as superior specimens of physique and buoyancy. We've come to accept this as a natural state of affairs. We seem

content with merely preventing illness or with "average" health. Considering our wealth of food and reliable information, the doors are open to better than "average."

*Health means more than mere absence of disease!* According to the definition accepted by the World Health Organization, health is the complete physical, mental and social well-being of the individual. And nutrition plays a part in more than the physical aspects of this definition!

### Long-Time Trends . . .

For many years now, we've been studying the average heights and weights of Iowa girls between the ages of 6 and 18. We've done this at intervals from 1925 to 1960.

These studies suggest that our girls are getting heavier; their weights differ from those of girls of the same age of several years ago. But heights haven't changed much. Similar studies made in neighboring states show this same trend.

What does this mean? Let's look back to Danger Signal 1: "Failure to adjust food energy intakes to

body needs." Perhaps our girls aren't adjusting their food needs to today's living conditions. They ride the bus to school instead of walking. Household chores aren't as demanding of energy as they used to be. And many tempting calorie-rich foods can be obtained without effort.

What's happening in these early years of the girls' lives gives clues to what we see occurring in later years. Nutrition in childhood and youth is related to our nutrition and well-being as we grow older. And what happens in one generation may be reflected in the next. These long-time trends of girls' body measurements may result from changes in the food supply, how these changes affect our way of living and how we adapt to them.

### More Years, Ailments . . .

Few of us think of ailments when we think of youth. Ailments among our young people may range from none to perhaps one for each boy or girl. Ailments increase as people grow older.

Aging and ailing have become al-

The link between aging and ailing may be evident in the vital statistics for our country. Among these statistics are a number of disorders related to nutrition. Poor food habits through the years ultimately take a toll. But when were the foundations for these ailments laid? Before birth? In childhood? In youth?

Food, diet and nutrition are not synonymous terms. But a poor diet or combination of food is the first step toward poor nutrition. Poor nutrition in youth is likely to leave its marks and may show up in later years.

The nutritional needs of youth are high. We know this. We also know that many young people, especially teenage girls, have poor diets. Most poor diets have their

*Poor breakfasts* — often actually skipped; too low in protein-rich foods; poor choice of cereals; not enough fruit; milk omitted; eggs seldom used.

*Poor snacks* — often make up as much of the diet as some meals; mainly carbohydrate-rich foods and beverages; thought of as “extras” but should be counted as part of the day’s meals (weight problem involved); social eating is a pitfall for all ages but especially for youth.

*Lack of variety* — same foods chosen again and again; overlooks new adventures with many good foods and the safety factor in variety.

*Lives to eat* — uses eating as a satisfaction because other interests, activities or worthwhile goals have not been found; attempts to drown troubles in eating which only brings on more troubles.

*Embezzles nutrition reserves* — doesn't eat enough to cover the day's needs; disregards the fact that, if needed nutrients aren't in the diet, the body draws its reserves from bones and tissues. The body doesn't have any reserves or savings left when a high-need time comes (as when we need to draw money from a savings account to pay a big bill). Reserves are highly important during pregnancy, or stress of illness and at times of tension and anxiety.

*Follows fads or quackery* — takes

*Uses guesswork* rather than nutrition guideposts — leaves the building and maintaining of the body to chance; ignores the fact that there is knowledge about nutrition just as there is knowledge in other areas of science.

We don't have to provide our nourishment haphazardly or by guesswork. Science has shown why we need certain nutrients each day and how we can obtain them. It has shown what the nutrients in foods do for health and fitness. It has made it possible for us to have daily food guides, such as USDA Leaflet 424, "Food for Fitness."

These are reliable guides for us to follow. They set a sound path from youth to our elderly years. But we also need a philosophy to live by – or eat by. Call it an ideal for ourselves individually. It consists in each of us aiming for the very best – in health, in fitness, in appearance, in mental and physical well-being.

**MILK GROUP:**  
Children — 3 to 4 glasses  
Teenagers — 4 or more glasses  
Adults — 2 or more glasses  
*Cheese, ice cream and other dairy foods can supply some of the milk.*

**MEAT GROUP:**  
2 OR MORE SERVINGS  
MEATS, POULTRY,  
FISH, EGGS, CHEESE  
*Alternates — dry beans, dry peas and nuts.*

**BREAD, CEREAL GROUP:**  
4 OR MORE SERVINGS  
WHOLE GRAIN, ENRICHED OR RESTORED  
*PLUS additional foods necessary to complete meals and to provide more food energy and other food values.*

**VEGETABLE, FRUIT GROUP:**  
4 OR MORE SERVINGS  
DARK-GREEN OR DEEP-YELLOW VEGETABLES  
CITRUS FRUITS OR TOMATOES  
OTHER FRUITS AND VEGETABLES, INCLUDING POTATOES

**DAILY FOOD GUIDE\***

\*Adapted from "Food for Fitness — A Daily Food Guide," Leaflet No. 424, U.S. Department of Agriculture.